

REMARKS

Claims 1-13 are all the claims pending in the application. By this Amendment, Applicant editorially amends claims 10 and 11. The amendments to claims 10 and 11 were made for reasons of precision of language and consistency, and do not narrow the literal scope of the claims and thus do not implicate an estoppel in the application of the doctrine of equivalents. The amendments to claims 10 and 11 were not made for reasons of patentability.

Claim Objections

The Examiner objected to claims 10 and 11 for minor informalities. Applicant fixed the minor informalities noted by the Examiner, and respectfully submits that the claim as now presented no longer include the potential informalities mentioned by the Examiner. Applicant therefore respectfully requests the Examiner to withdraw these objections to the claims.

Claim Rejections under 35 U.S.C. § 112, first paragraph

The Examiner rejected previously added claims 12 and 13 as being allegedly not enabled (see page 3 of the Office Action). Specifically, the Examiner alleges that features of “regardless of the destination for the signaling message” and “regardless of the signaling configuration of said signaling message” are not enabled. Applicant respectfully disagrees.

First, Applicant respectfully points out that claim 12 recites: “when the switch is not the destination, the translator replaces the receive flag with the predetermined constant character string regardless of the destination for the signaling message” and claim 13 recites: “when the

switch is not the destination, the translator replaces the receive flag with the predetermined constant character string regardless of the destination for the signaling message.”

Next, Applicant turns to the exemplary, non-limiting embodiment to illustrate enabling support for the features of claims 12 and 13. Specifically, in the exemplary, non-limiting embodiment, Fig. 2 shows that when the destination of the signaling message is not here, *i.e.*, not the switch, step 26, a flag with a predetermined order corresponding to send order is added, step 27 (see page 8 of the specification). The predetermined send order is to be added to the message whatever the protocol that is to be used thereafter in conveying it to the exchange 19 (see page 6 of the specification). The send order is replaced with receive order when the message is received (see page 7 of the specification). As is visible from the passage above, the destination is irrelevant to the send order as the send order is used, for example, to signal the need to send the message as opposed to process it. This passage is provided by way of an example only and is not intended to limit the scope of the claims in any way. For at least these exemplary reasons, Applicant respectfully requests the Examiner to withdraw this rejection of claims 12 and 13.

Claim Rejections under 35 U.S.C. § 102

Claims 1, 3, 5, 7 and 8 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,995,595 to Hickey et al. (hereinafter “Hickey”). Applicant respectfully traverses this rejection and respectfully requests the Examiner to reconsider in view of the following comments.

Of these claims, only claims 1 and 3 are independent. To begin, independent claim 1 recites a number of unique features not taught by the prior art references cited by the Examiner. For example, claim 1 recites:

an interpreter producing a signaling configuration upon receiving an order to send a signaling message, the signaling configuration produced depends on a type of the signaling channels accessible to the coupler...

Applicant respectfully submits that the unique combination of claim 1 including at least the claimed signaling configuration produced depends on a type of the signaling channels accessible to the coupler is absent from the teachings of Hickey. The Examiner alleges that Hickey's setup message transmitted in the D-channel is equivalent to producing signaling configuration depending on a type of the signaling channels accessible to the coupler, as set forth in claim 1 (see page 4 of the Office Action). Applicant respectfully disagrees with the Examiner.

Applicant has carefully studied Hickey's discussion of transferring call from one telephone to the next, which is not similar to producing signaling configuration that will depend on the type of the signaling channel accessible to the coupler.

To be an "anticipation" rejection under 35 U.S.C. § 102, the reference must teach every element and recitation of the Applicant's claims. Rejections under 35 U.S.C. § 102 are proper only when the claimed subject matter is identically disclosed or described in the prior art. Thus, the reference must clearly and unequivocally disclose every element and recitation of the claimed invention.

For example, an illustrative, non-limiting embodiment of the present invention discloses a switch that is capable of transmitting and receiving signaling messages for a variety of communication channels without having a transcoder for each type of signaling message. In particular, this exemplary embodiment has a switch with an interpreter, which transmits signaling messages in a variety of forms based on the signaling channels available to the switch. In this exemplary embodiment, a predetermined instruction string (order) is added to the signaling message. The predetermined order is always the same irregardless of the type of signaling message.

In response to the order, the interpreter of the exemplary embodiment of the present invention, encapsulates the signaling message according to the type of channels available at the switch. Upon receipt of this message by another switch, the recipient switch adds a “received” instruction to the signaling message and then, checks to see if the message is addressed to this switch. When the signaling message is not addressed to this switch, a “send” order is added, and the signaling message is reconfigured based on channels available at this recipient switch. For example, if the switch only has an X25 type of channel, then the signal is configured to be transmitted over this X25 type of channel even if the original signal is in a different type. On the other hand, if the switch has a number of channels available, then the interpreter can decide which type of channel to use (e.g., first available link in chronological order). This discussion of an exemplary embodiment is provided by way of an example only and is not intended to limit the scope of the claims in any way.

Hickey, on the other hand, teaches a process of sharing and transferring information between ISDN telephones (see *Abstract*). In particular, Hickey discloses a telephone user at Station A placing a call to the WAW telephone 12 at Station B. Hickey further teaches that the Station B site is unattended and the WAW telephone 12 has been placed in the remote operation mode by activating the LOCAL/REMOTE pushbutton 38. Since Station B is an unattended site, the WAW telephone 12 will ring no answer, transmit calling line ID information to Station C, and if requested by the WAW telephone 14, transfer Station A's call to Station C (Figs. 1 and 4; col. 3, lines 22 to 54).

Hickey teaches that incoming D channel messages are monitored by WAW telephone 12 and a determination is made as to whether an incoming call is present. Next, a check is made to determine whether the WAW telephone 12 is in the local or remote mode. If, the WAW telephone is in the local mode, a normal call processing continues. On the other hand, if the WAW telephone 12 is in the remote operating mode, the incoming calling line ID is stripped out and stored in RAM 54. Then, a setup message is constructed and sent over the D channel. The outgoing setup message from Station B to Station C contains the calling line ID of Station A either in the user to user, calling party sub-address, or lower layer compatibility information elements. Along with the calling line ID, a flag or code is included to indicate to Station C that this call is from the WAW telephone 12. The constructed setup message is transmitted to the ISDN network 16 via the system bus 44, the signaling channel 46, and the network interface 42 (Fig. 4; col. 3, line 43 to col. 4, line 5).

In other words, Hickey teaches a method of transferring information between ISDN telephones that are operable in either a local or remote mode of operation. The telephones are placed in the local mode of operation when the user is available to accept calls and is placed in the remote operation mode if the user wishes incoming calls or other information to be transferred to a companion phone at a different location. The selection of the telephone mode of operation may be controlled either locally or from a remote location (col. 1, lines 39 to 48).

Applicant respectfully submits that the relevance of Hickey is not understood. Hickey is directed to sharing and transferring information between phones and has nothing to do with a switch transmitting and receiving signaling messages for/from a variety of communication channels without having a transcoder for each type of signaling message. Hickey fails to even suggest a non uniform network where transcoders may need to be used. In fact, Hickey only teaches a conventional setup of having B (bearer channels) and one delta (D) channel for signaling message (col. 1, lines 27 to 36).

Moreover, Hickey only teaches construing a set up message and sending it over the D channel. Hickey, however, fails to teach or suggest producing a signaling configuration based on type of signaling channels accessible to the network interface 42. Hickey fails to teach or suggest any correlation between the D channel and the setup message. In fact, Hickey does not address the signaling channels or how the set up message is construed. It is simply not the focus of Hickey's teachings. Moreover, as is clearly visible from Hickey, the D channel is used for conveying signaling packets to effect signaling message between the ISDN telephones and the network (col. 3, lines 8 to 20). Clearly, Hickey's teaching of construing a setup message and

sending it over the D channel cannot be equated with producing signaling configuration based on type of signaling channels at least because in Hickey, there is only one signaling channel, D channel. Moreover, in Hickey, there is no teaching or even remote suggestion that the type of signaling channel somehow impacts the signaling configuration.

Therefore, “an interpreter producing a signaling configuration upon receiving an order to send a signaling message, the signaling configuration produced depends on a type of the signaling channels accessible to the coupler...” as set forth in claim 1 is not suggested or taught by Hickey, which clearly lacks having more than one type of signaling channels available to the network interface, and producing the signaling configuration based on the type of the signaling channels. For at least these exemplary reasons, Applicant respectfully submits that claim 1 is patentably distinguishable and is patentable over Hickey. Therefore, Applicant respectfully requests the Examiner to withdraw this rejection of claim 1.

Next, independent claim 3 recites features similar to the features argued above with respect to claim 1. Since claim 3 contains features that are similar to the features argued above with respect to claim 1, those arguments are respectfully submitted to apply with equal force here. For at least substantially analogous reasons, therefore, Applicant respectfully requests the Examiner to withdraw this rejection of independent claim 3 and its dependent claim 5.

Furthermore, since claims 7 and 8 dependent upon claim 1, they are patentable at least by virtue of their dependency.

Claim Rejections under 35 U.S.C. § 103

Claims 2, 4, 6, and 9-13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hickey in view of U.S. Patent No. 5,949,871 to Kabay et al. (hereinafter “Kabay”). Applicant respectfully traverses this rejection in view of the following comments.

Claims 2 and 9-13 depend on claim 1 and claims 4 and 6 depend on claim 3. Applicant has already demonstrated that Hickey fails to teach or suggest the unique features of the independent claims 1 and 3. Kabay does not cure the deficient teachings of Hickey.

Kabay only teaches an improved method of providing services in the telecommunications network for ported clients (clients which kept their number but changed the provider) by means of using an interceptor (col. 5, lines 40 to 65). Specifically, this interceptor intercepts a control message (e.g., Initial Address Message) and checks whether the caller or the receiver is a ported client by checking the dial number and the called party number. If the caller or the called party is a ported client, then the interceptor accesses the type and values of an IAM and compares them with stored service trigger data (Fig. 15; col. 13, lines 10 to 19). Next, at least one of the call-related parameters of the control message is modified to effect some of the required service implementation action. Basically, this interceptor sends out a new IAM with destination data set in dependence on the location routing number (col. 16, lines 1 to 67).

Kabay, however, clearly fails to cure the deficient teachings of Hickey in that it also fails to teach or suggest producing signaling configuration based on a type of the signaling channels that are accessible to the coupler. Therefore, dependent claims 2, 4, 6, and 9-13 are patentable

over the combined teachings of Hickey and Kabay at least by virtue of their dependency on claim 1 or 3.

In addition, dependent claim 2 recites: *a detector recognizing whether the receiver signaling message is addressed to the switch*. The Examiner alleges that this feature is taught by Kabay's method of ascertaining whether service implementation action is required with respect to the call associated with the control message (see pages 5-6 of the Office Action). Applicant respectfully disagrees. Kabay teaches intercepting the message, and processing the trigger data when the call comes from a ported caller or to a ported called party. However, the fact that the message has to be intercepted, already suggests that the message is never intended for the interceptor box and as such the detection recited in claim 2 is unnecessary. Moreover, the detector as set forth in claim 2 is part of the switch, whereas the interceptor box is a separate entity and not a part of another entity (Fig. 10; col. 7, lines 43 to col. 8, line 10). For at least these additional reasons, Applicant respectfully submits that claim 2 is patentable over the combined teaching of Hickey and Kabay.

Finally, depend claim 9 recites: "wherein the coupler has a plurality of interfaces, wherein each of said interfaces provides access to one of said channels and wherein when a plurality of signaling channels are available to transmit said signaling message, a next available signaling channel is selected in a chronological order and the signaling message is configured to produce the signaling configuration for the next available signaling channel."

The Examiner alleges that these features are obvious because “it is generally considered to be within the ordinary skill in the art to duplicate parts for multiplied effect” (see page 6 of the Office Action). This is inapplicable to the present case. That is, claim 9 does not “duplicate part for multiple effect” but rather may integrate non-uniform networks. That is, Applicant respectfully submits that Hickey and Kabay, taken alone or in any conceivable combination, fail to teach or suggest having a number of signaling channels and a number of interfaces so that the same signaling message may be sent in various types of channels. For at least this additional reason, Applicant respectfully submits that claim 9 is patentable over the combined teachings of Hickey and Kabay.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly invited to contact the undersigned attorney at the telephone number listed below.

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Respectfully submitted,



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